

Disclaimers

FORWARD-LOOKING STATEMENTS AND MARKET DATA

We caution you that this presentation contains forward-looking statements. All statements other than statements of historical facts contained in this presentation, including statements regarding our future results of operations and financial position. business strategy, research and development plans, the anticipated timing and phase of development, costs, design and conduct of our ongoing and planned preclinical studies and clinical trials for our product candidates, the timing and likelihood of regulatory filings and approvals for our product candidates and the potential benefits of regulatory designations, the potential to develop product candidates and the potential safety and therapeutic benefits of our product candidates, our ability to commercialize our product candidates, if approved, the pricing and reimbursement of our product candidates, if approved, the timing and likelihood of success, plans and objectives of management for future operations, and future results of anticipated product development efforts, are forwardlooking statements. In some cases, you can identify forwardlooking statements by terms such as "may," "will," "should," "expect," "plan," "anticipate," "could," "intend," "target," "project," "contemplates," "believes," "estimates," "predicts," "potential" or "continue" or the negative of these terms or other similar expressions. The inclusion of forward-looking statements should not be regarded as a representation by us that any of our plans will be achieved. Actual results may differ from those set forth in this presentation due to the risks and uncertainties inherent in our business, including, without limitation: we are early in our development efforts, have only recently begun

testing TYRA-300 and TYRA-200 for oncology in clinical trials and the approach we are taking to discover and develop drugs based on our SNAP platform is novel and unproven and it may never lead to product candidates that are successful in clinical development or approved products of commercial value; potential delays in the commencement, enrollment, and completion of preclinical studies and clinical trials; results from preclinical studies or early clinical trials not necessarily being predictive of future results; our dependence on third parties in connection with manufacturing, research and preclinical testing; we may expend our limited resources to pursue a particular product candidate and/or indication and fail to capitalize on product candidates or indications with greater development or commercial potential: acceptance by the FDA of INDs or of similar regulatory submissions by comparable foreign regulatory authorities for the conduct of clinical trials of TYRA-300 in pediatric achondroplasia; an accelerated development or approval pathway may not be available for TYRA-300 or other product candidates and any such pathway may not lead to a faster development process; later developments with the FDA may be inconsistent with the minutes from our prior meetings, including with respect to the design of our planned Phase 2 study of TYRA-300 in ACH; unexpected adverse side effects or inadequate efficacy of our product candidates that may limit their development, regulatory approval, and/or commercialization; the potential for our programs and prospects to be negatively impacted by developments relating to our competitors, including the results of studies or regulatory determinations relating to our competitors; unfavorable results from preclinical studies; we may not realize the benefits (i) associated with orphan drug designation, including that orphan drug exclusivity may not effectively protect a product from competition and that such exclusivity may not be maintained

or (ii) from the rare pediatric disease designation, including potential to receive a Priority Review Voucher (PRV) or derive any value therefrom; regulatory developments in the United States and foreign countries; our ability to obtain and maintain intellectual property protection for our product candidates and proprietary technologies; we may use our capital resources sooner than we expect; unstable market and economic conditions may adversely affect our business and financial condition and the broader economy and biotechnology industry; and other risks described in our prior filings with the Securities and Exchange Commission (SEC), including under the heading "Risk Factors" in our annual report on Form 10-K and any subsequent filings with the SEC. You are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date hereof, and we undertake no obligation to update such statements to reflect events that occur or circumstances that exist after the date hereof. All forward-looking statements are qualified in their entirety by this cautionary statement, which is made under the safe harbor provisions of the Private Securities Litigation Reform Act of 1995.

This presentation also contains estimates and other statistical data made by independent parties and by us relating to market size and growth and other data about our industry. This data involves a number of assumptions and limitations, and you are cautioned not to give undue weight to such estimates. In addition, projections, assumptions, and estimates of our future performance and the future performance of the markets in which we operate are necessarily subject to a high degree of uncertainty and risk. These and other factors could cause results to differ materially from those expressed in the estimates made by the independent parties and by us.

Here's a snapshot of TYRA

Differentiated assets

Precision small molecules targeting large opportunities in FGFR biology

Lead asset: TYRA-300, the first oral FGFR3-selective inhibitor in the clinic

Accelerated design



NASDAQ: TYRA

CASH Mar 31, 2024: \$382.5M

RECENT PROGRESS

TYRA-300^{ACH}: on track to submit IND in 2H24

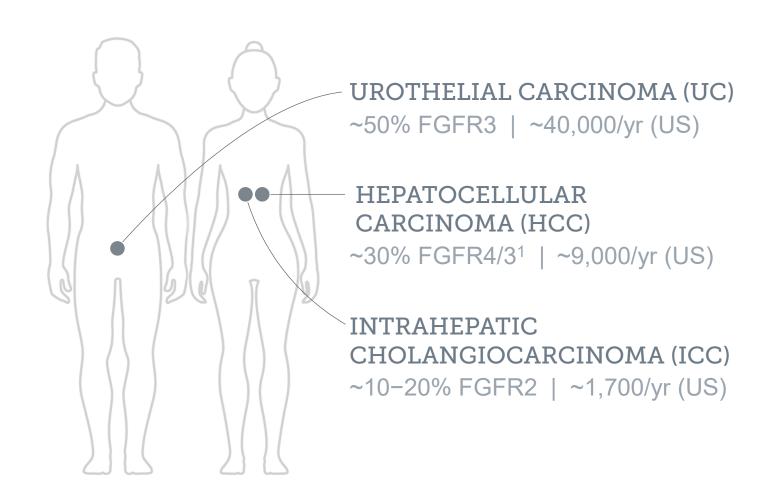
TYRA-300^{ONC}: SURF-301 Part B ongoing to support future NMIBC & mUC studies

TYRA-430^{ONC}: completing IND-enabling studies

Strengthened Board with addition of Dr. Susan Moran & Dr. S. Michael Rothenberg

FGFR alterations are implicated in many cancers

FGFR1



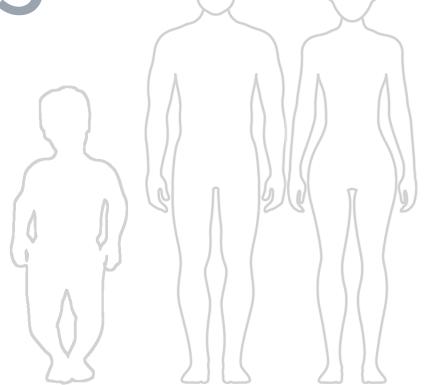
FGFR3 drives two large market opportunities



ACHONDROPLASIA (ACH)

~99% FGFR3 | ~3,000/yr (US)

OTHER FGFR3-RELATED SKELETAL DYSPLASIAS ~40,000/yr (US)



UROTHELIAL CARCINOMA (UC)

~50% FGFR3 | ~40,000/yr (US)

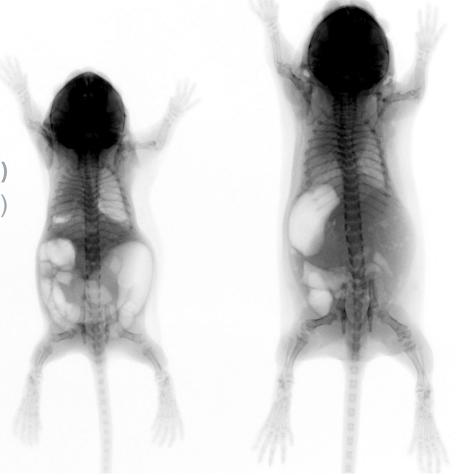
TYRA-300

Has the potential to address these indications

Pre-clinical studies with TYRA-300 produced encouraging results

FGFR3

ACHONDROPLASIA (ACH) ~99% FGFR3 | ~3,000/yr (US)



TYRA-300

17.9%

Observed increase in naso-anal length relative to vehicle*

*p<0.0001

Our expertise in FGFR biology creates a differentiated pipeline

GENETIC CONDITIONS	Estimated Annual US Addressable ¹	Discovery	IND- Enabling	1	Phase 2	3	Anticipated Milestone
FGFR3 ^{ACH} : TYRA-300	~3K		• · · · ·	Data from FGFR3 ^{ONC}	••••		Submit IND 2H '24

Potentially leading to additional skeletal dysplasias, including FGFR3-related conditions (HCH, SHOX), and pediatric short stature

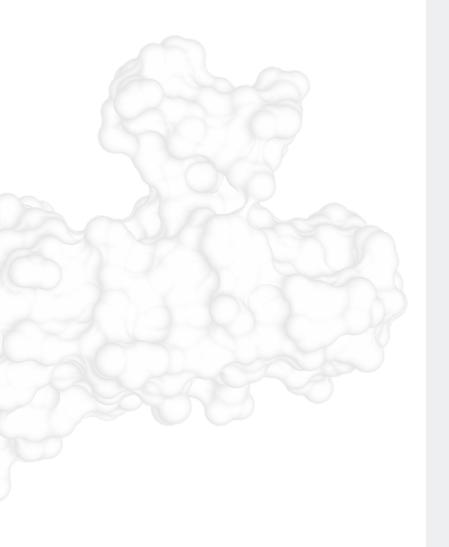
ONCOLOGY



TYRA retains an active FGFR3 discovery program.

 $^{1.\} Represents\ FGFR3/FGFR2/FGF19+\ incidence\ and\ relapses\ for\ TYRA300/200/430,\ prevalence\ for\ ACH$

TYRA

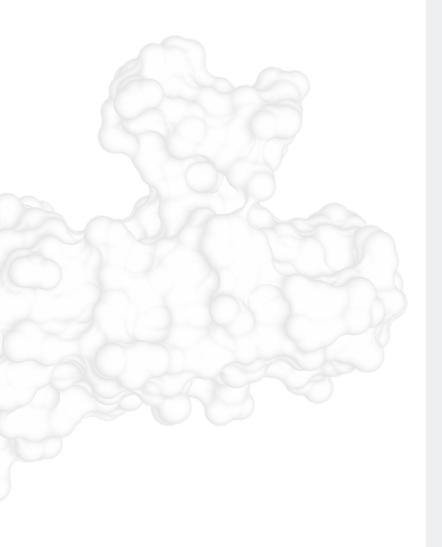


TYRA-300^{ACH}

TYRA-300^{ONC}

SNÅP

TYRA



TYRA-300^{ACH}

TYRA-300^{ONC}

SNÅP

Potentially efficient development path in an attractive, rapidly-emerging market

ACH can result in serious clinical complications

ACH is the most common cause of disproportionate short stature

MECHANISM

FGFR3 G380R gain of function mutation accounts for ~99% of ACH^{1,2}

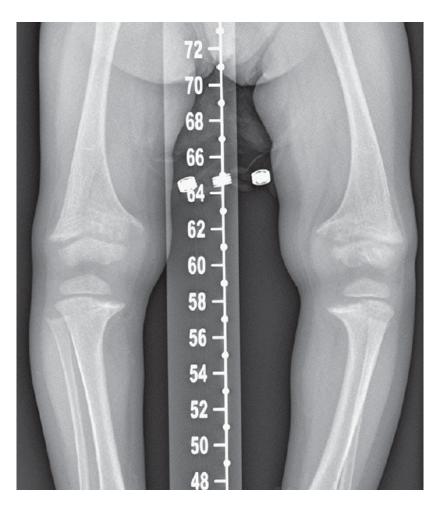
FGFR3 inhibits chondrocyte proliferation and differentiation, resulting in decreased longitudinal bone growth²

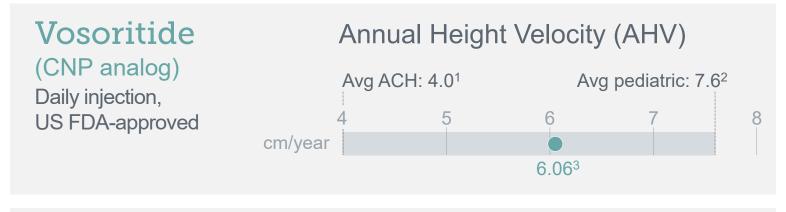
COMPLICATIONS

Infants can face serious complications related to critical foramen magnum stenosis^{1,3}

Additionally: Pain, multiple surgeries, and functional limitations (e.g., reach, stride)

There is a strong need for an oral therapy selective for FGFR3



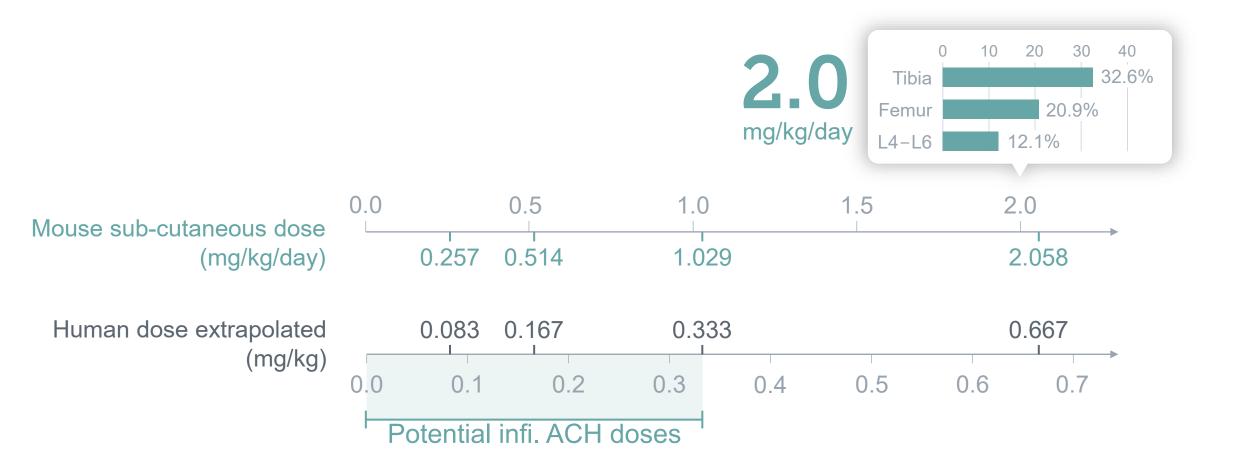




4. Phase 2 Cohort 5 0.250mg/kg daily, Savarirayan, 2023 (ENDO)

^{1.} Savarirayan, 2021 (5 to 14yrs); 2. Merck Manuals (12mo to 10yrs); 3. Phase 2 Cohort 3 Data, VOXZOGO Label, Savarirayan, 2021;

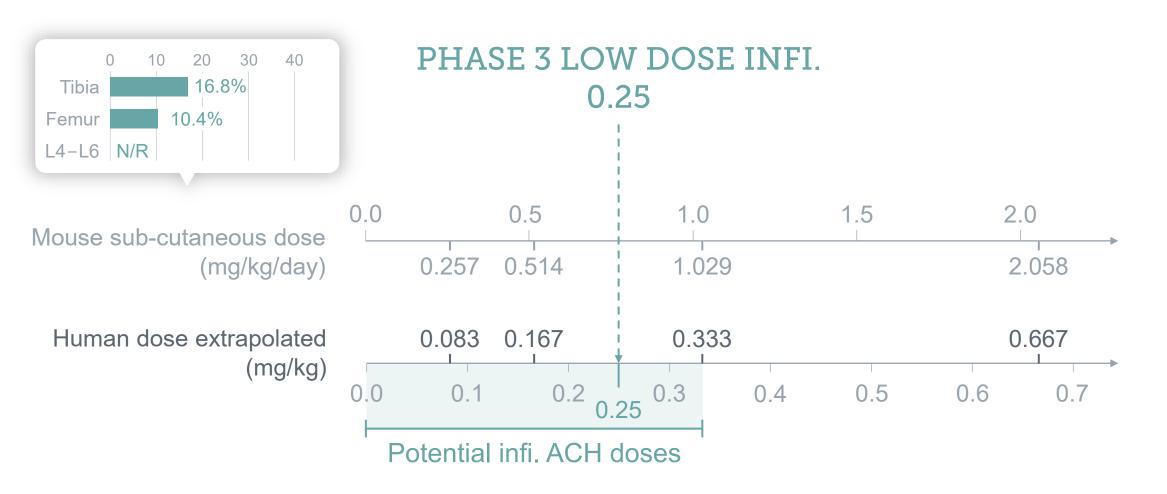
2mg/kg/day infigratinib promoted growth in an ACH mouse model



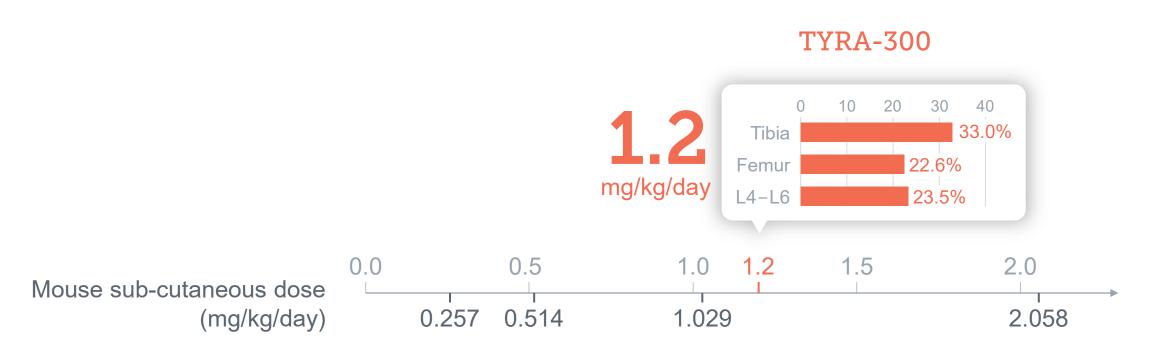
Subsequent 0.5mg/kg/day infigratinib dose demonstrated less growth



0.5mg/kg/day infigratinib mouse dose translates closer to Ph3 dose



TYRA-300 was highly active in a similar ACH pre-clinical study



Pan-FGFR inhibitors have exhibited toxicity in oncology

FGFR1: HYPERPHOSPHATEMIA

PAN-FGFR INHIBITOR	S	% PATIENTS AFFECTED
PEMAZYRE	(pemigatinib ¹)	60%
LYTGOBI	(futibatinib ²)	88%
BALVERSA	(erdafitinib ²)	76%
TRUSELTIQ	(infigratinib ¹)	82%



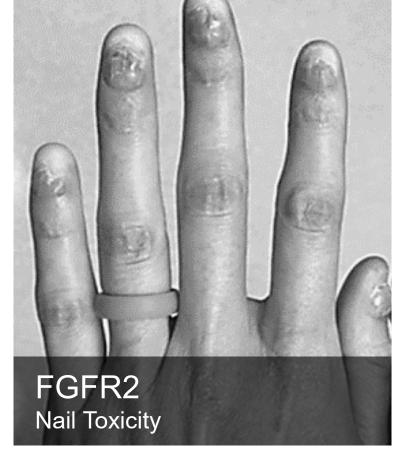
1. FGFR1-3 inhibitor 2. FGFR1-4 inhibitor

Source: PEMAZYRE (pemigatinib) label, FIGHT-202 data, accessed 04/15/24; LYTGOBI (futibatinib) label, pooled data, accessed 04/15/24; BALVERSA (erdafitinib) label, BLC3001 Cohort 1 data, accessed 04/15/24; TRUSELTIQ (infigratinib) label, pooled data, accessed 04/15/24; Chan, 2022; Kim, 2019; Hollebecque, 2022 (ESMO)

Pan-FGFR inhibitors have exhibited toxicity in oncology

OTHER TOXICITIES





Pan-FGFR inhibitors have exhibited toxicity in oncology







Source: PEMAZYRE (pemigatinib) label, FIGHT-202 data, accessed 04/15/24; LYTGOBI (futibatinib) label, pooled data, accessed 04/15/24; BALVERSA (erdafitinib) label, BLC3001 Cohort 1 data, accessed 04/15/24; TRUSELTIQ (infigratinib) label, pooled data, accessed 04/15/24; Chan, 2022; Kim, 2019; Hollebecque, 2022 (ESMO)

Pan-FGFRi side effects led to dose reductions & discontinuations

PAN-FGFR

INHIBITOR

% PATIENTS

DOSE REDUCTIONS & DISCONTINUATIONS

PEMAZYRE (pemigatinib¹) 23%

LYTGOBI (futibatinib²) 63%

BALVERSA (erdafitinib²) 83%

TRUSELTIQ (infigratinib¹) 75%

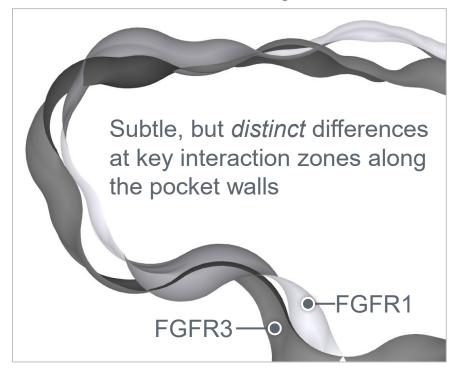




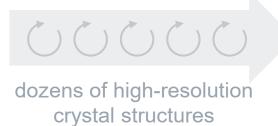


The challenge: FGFR family active sites are nearly identical

FGFR isoform selectivity



MOLECULAR MODEL

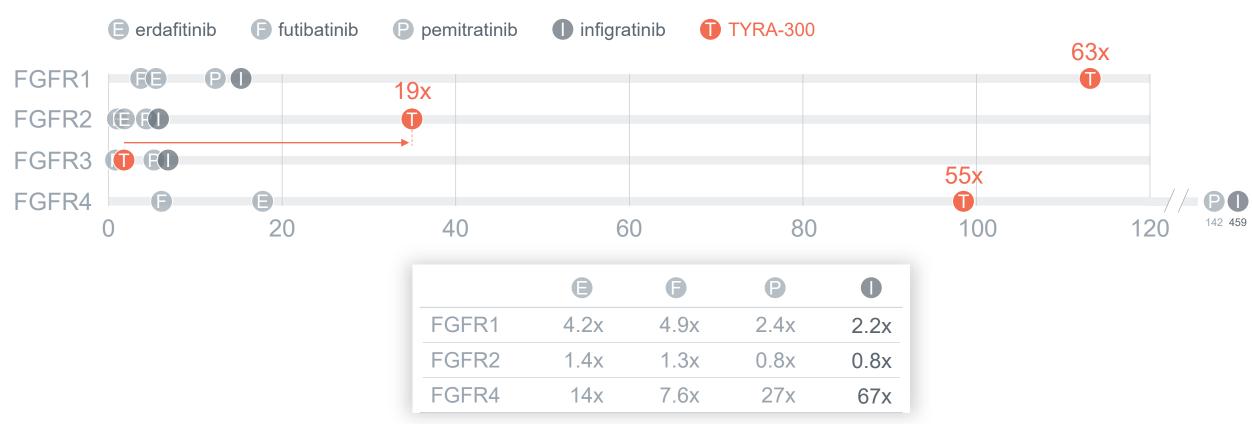




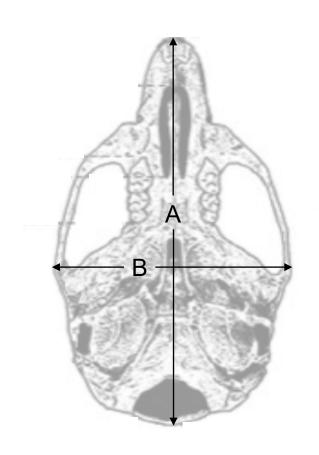
CRYSTALLOGRAPHY

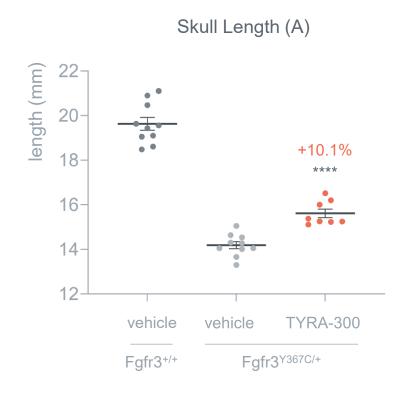
TYRA-300 was more selective for FGFR3 than pan-FGFR inhibitors

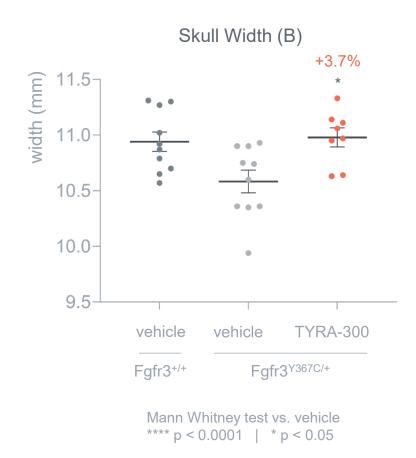
Selectivity observed for TYRA-300 vs. approved or late-stage clinical compounds: in vitro Ba/F3 Cellular IC₅₀ (nM)



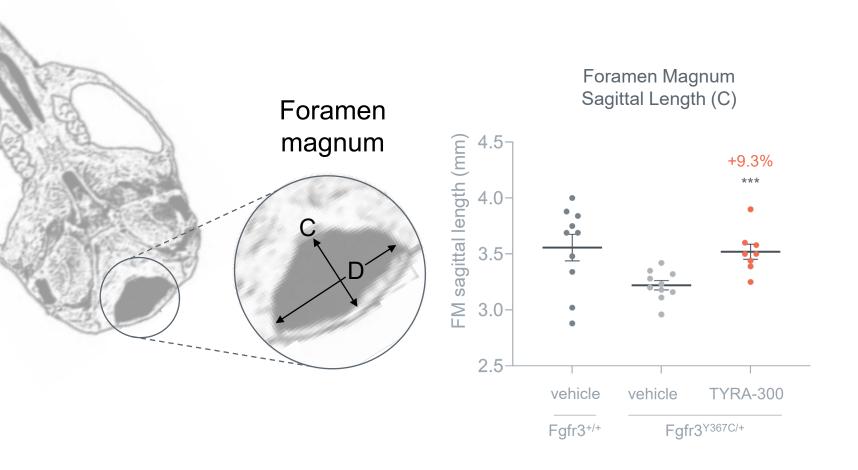
TYRA-300 improved the shape of the skull in ACH mouse model

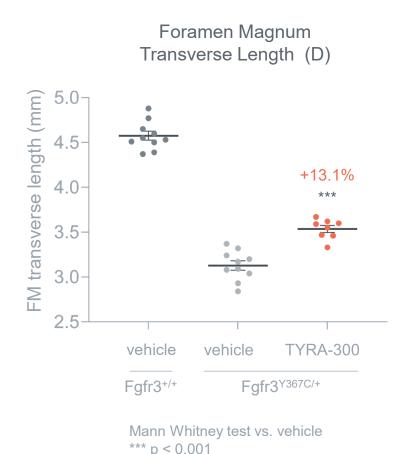




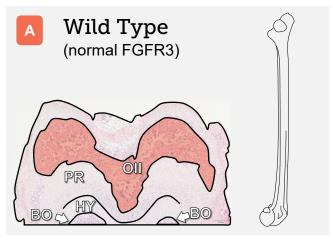


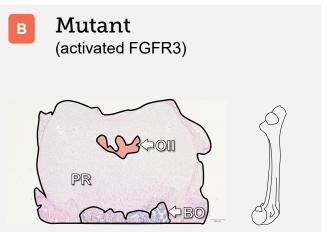
TYRA-300 improved the foramen magnum in ACH mouse model





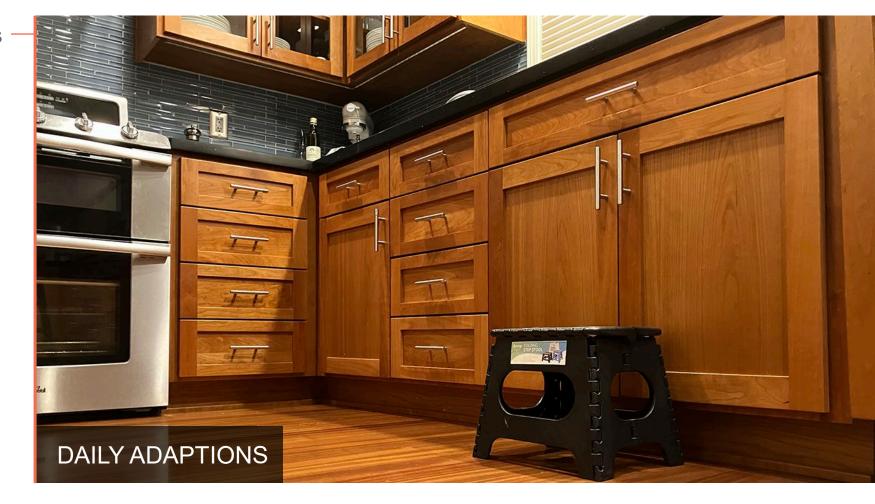
TYRA-300 restored growth plate architecture in ACH mouse model



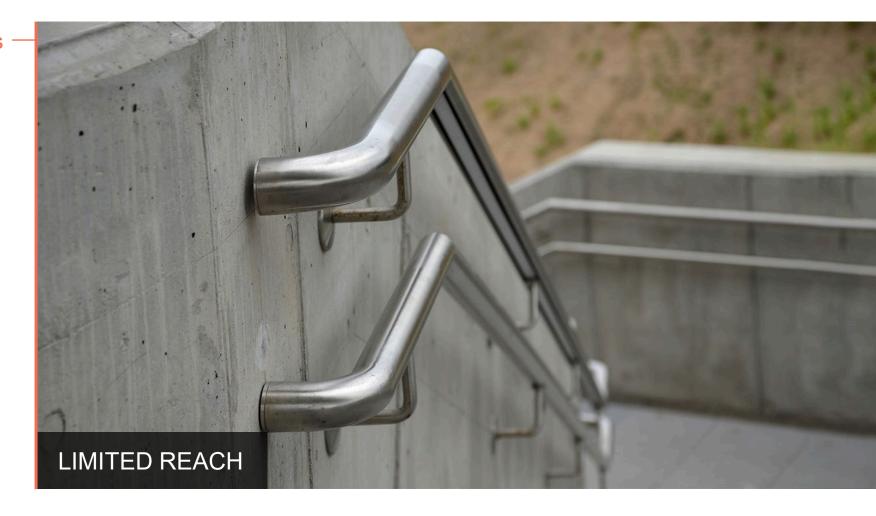




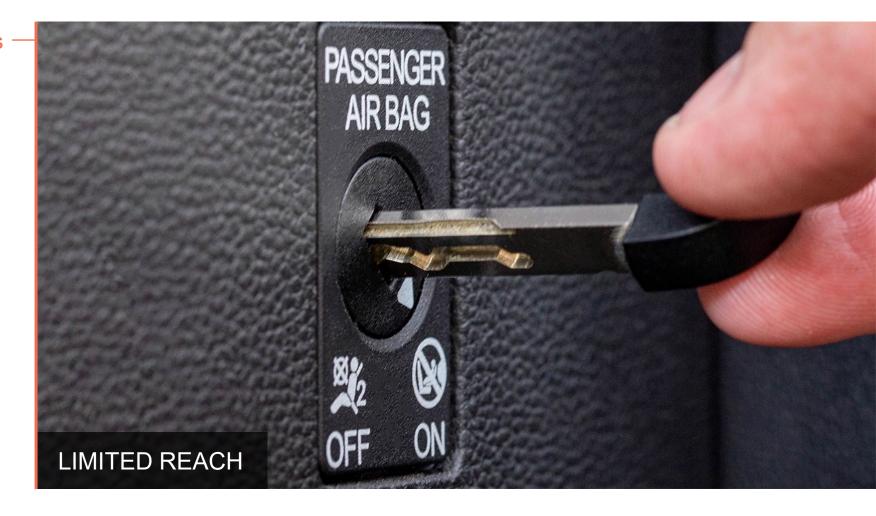
- 1 The ACH community's needs
- 2 FDA considerations
- 3 Potential differentiation



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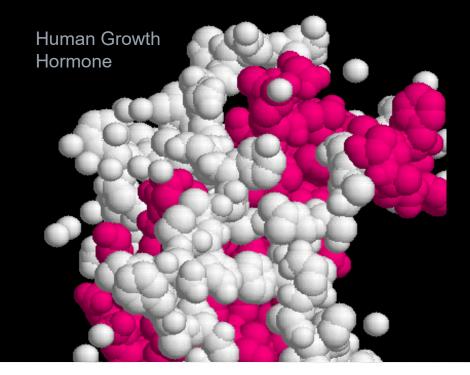
- 1 The ACH community's needs
- 2 FDA considerations
- 3 Potential differentiation

CURRENT VIEW

No validated growth prediction models link short-term AHV with final height.

Co-evaluation of other clinically meaningful endpoints is recommended.

HISTORICAL CONTEXT

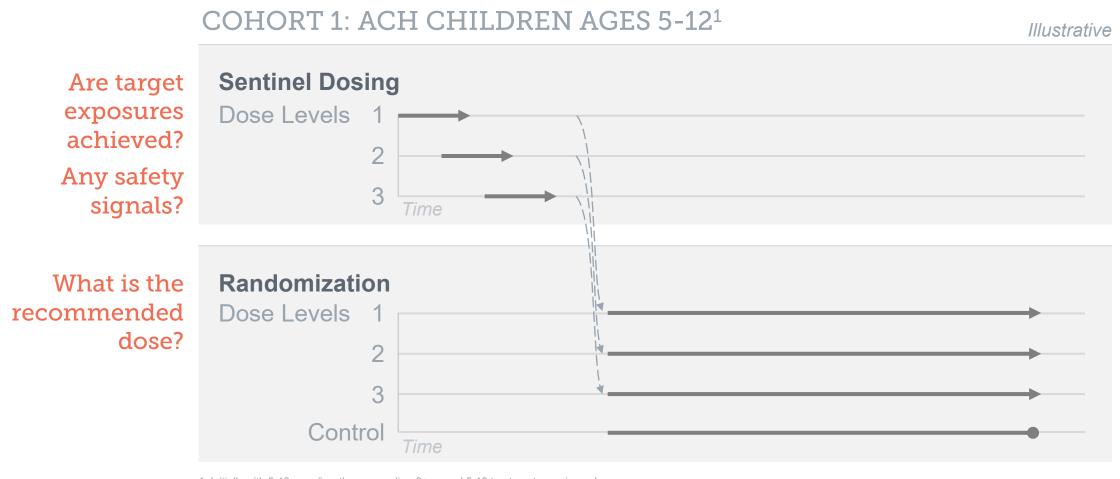


Our proposed development plan sets up potential for differentiation

 The ACH community's needs FDA considerations Potential differentiation 	PHASE 2 and Pivotal Randomized, multi-dose with control ^{1,2}	Long Term Follow Up Potential comparative cohorts		
AHV	Surrogate, 6, 12 & 24 mo			
Functional improvements	Exploratory endpoints	Potential differentiation		
Clinical sequalae	Exploratory endpoints			
Final height	Not previously required for accelerated approval ³	Previously required for full approval ³		

^{1.} Initially with 5-12yrs naïve, then expanding 2+yrs and 5-12 treatment experienced; 2. Based on currently available information, including current treatment landscape, and subject to change based on clinical results, regulatory interactions and other factors; 3. Based on VOXZOGO precedent

We plan to design our Ph2 to determine recommended dose(s)



^{1.} Initially with 5-12yrs naïve, then expanding 2+yrs and 5-12 treatment experienced

Based on currently available information, including current treatment landscape, and subject to change based on clinical results, regulatory interactions and other factors

There are multiple development opportunities beyond ACH

FGFR3 GERMLINE MUTATIONS

SKELETAL DYSPLASIAS

Achondroplasia (~3K) ← and RPD granted

Hypochondroplasia (~2K)

Thanatophoric dysplasia

SADDAN syndrome

Double dominant ACH

CRANIOSYNOSTOSIS

Crouzon syndrome with acanthosis nigricans

Muenke syndrome

OTHER GENETIC SHORT STATURE

Leri-Weill dyschondrosteosis (~26K)

Turner syndrome (~10K)

Osteogenesis imperfecta (~4K)

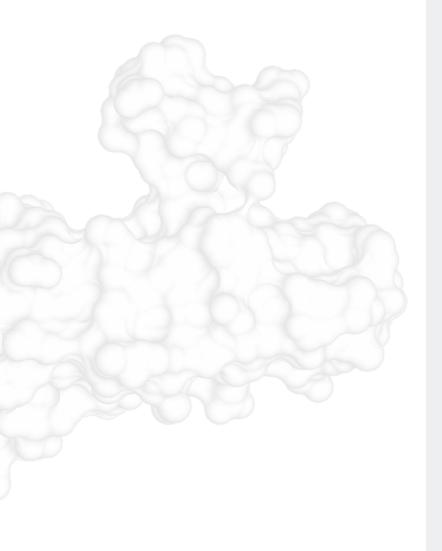
Mucopolysaccharidoses IVA and VI

Laron syndrome (Growth Hormone Insensitivity)

PEDIATRIC SHORT STATURE

Idiopathic short stature (~700K¹)

TYRA



TYRA-300^{ACH}

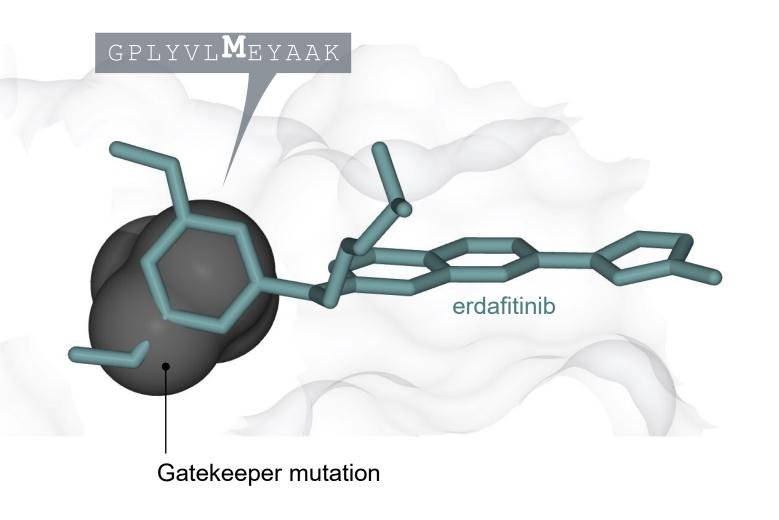
TYRA-300^{ONC}

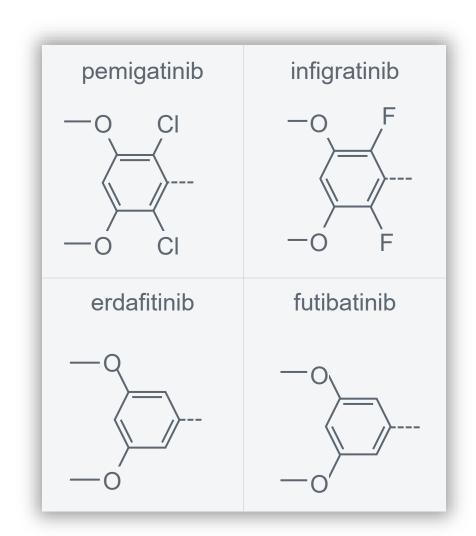
SNÅP

Designed to potentially improve tolerability and durability over current standards of care

Resistance mutations potentially limit the durability of current drugs

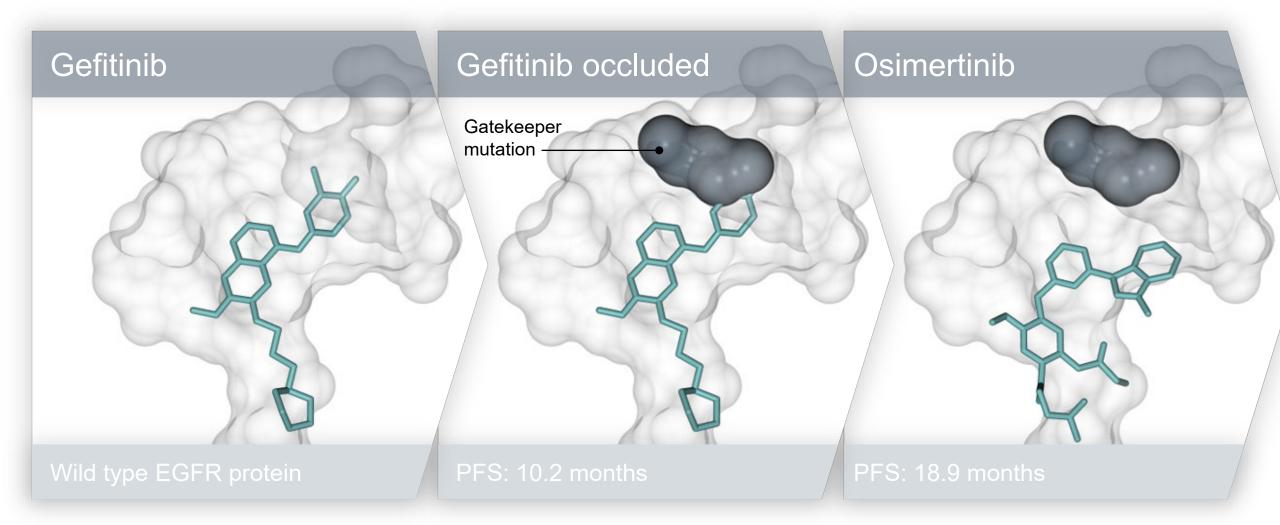
FGFR3 Example



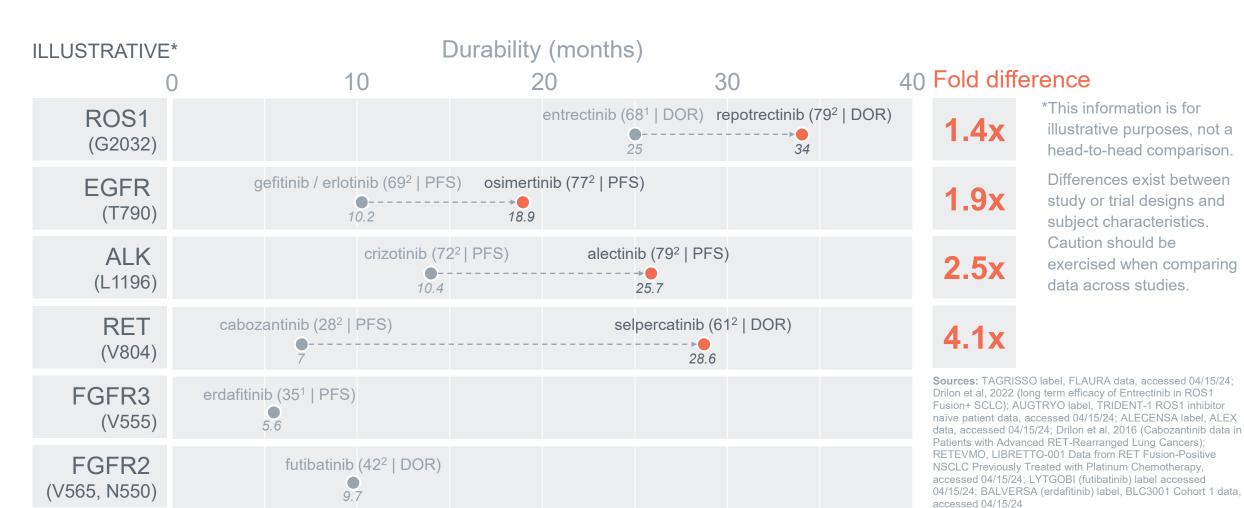


Structural insights provide a rational path to address recurrence

EGFR Example

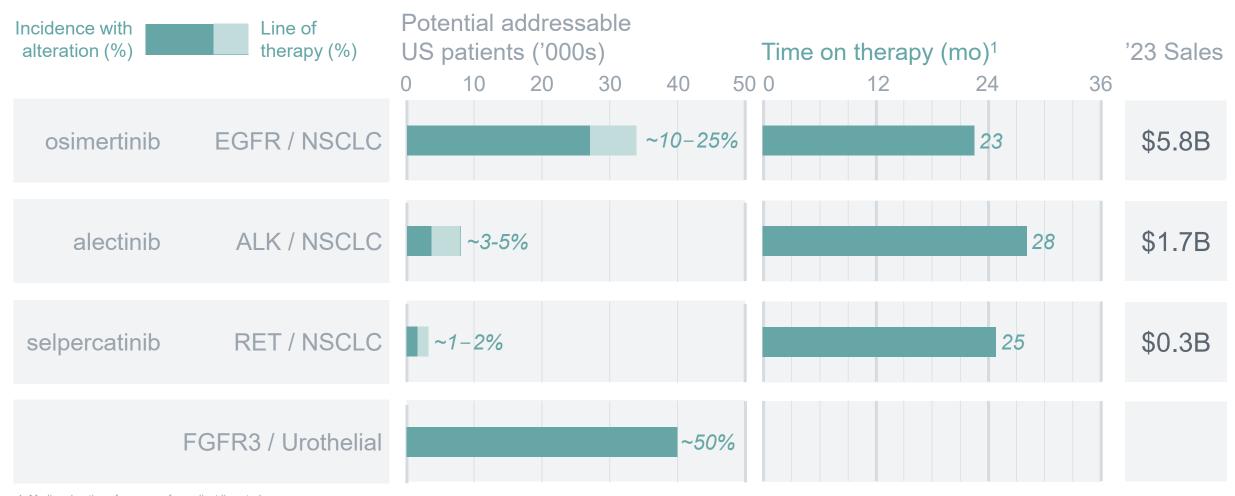


Next gen drugs extend progression free survival



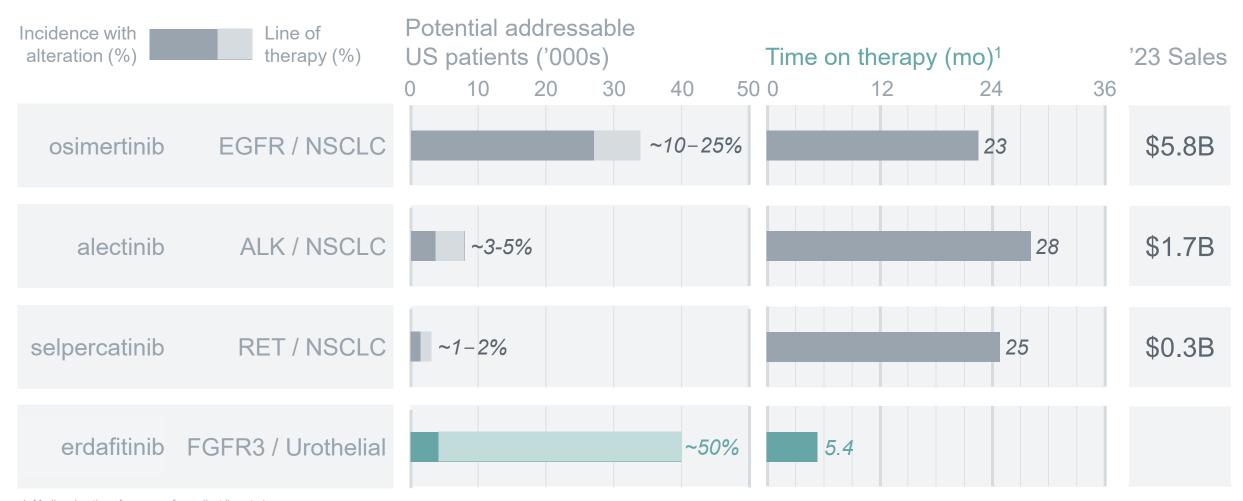
^{1.} Objective Response Rate (%); 2. Overall Response Rate (%)

FGFR3 positive urothelial cancer is an outsized opportunity



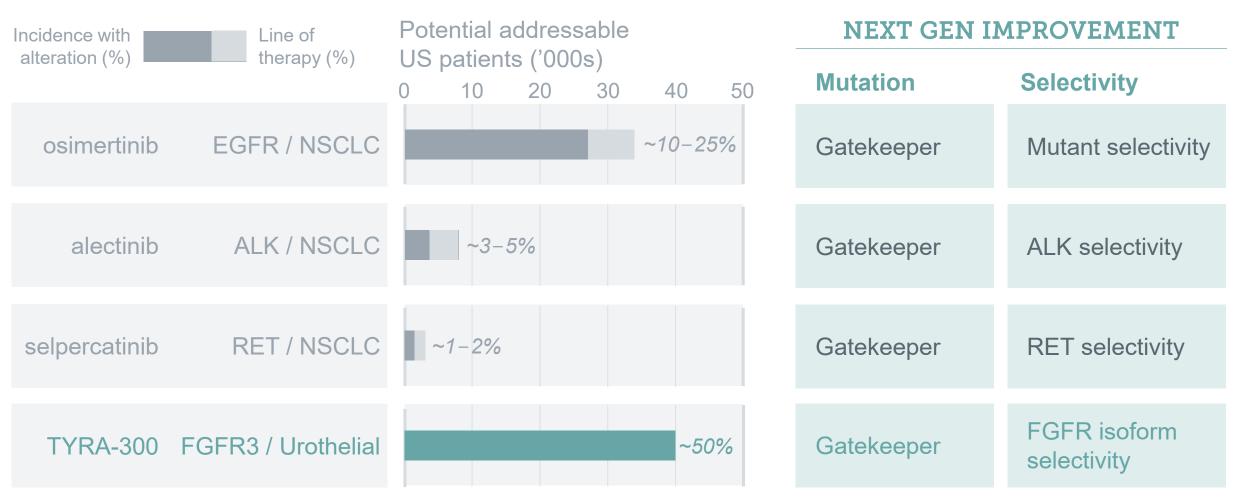
^{1.} Median duration of exposure for earliest line study
Source: SEER, ACS, NCCN; UpToDate; Company filings; GlobalData; Wu et al, 2020; Zhang et al, 2016; Graham et al., 2018; Mok et al, 2020; Subbiah et al, 2020;
Drilon et al, 2023; Kacew et al, 2020; Matulewicz, 2020; Rizzo, 2022; Necchi, 2020

Despite a large opportunity, pan-FGFR inhibitors fall short



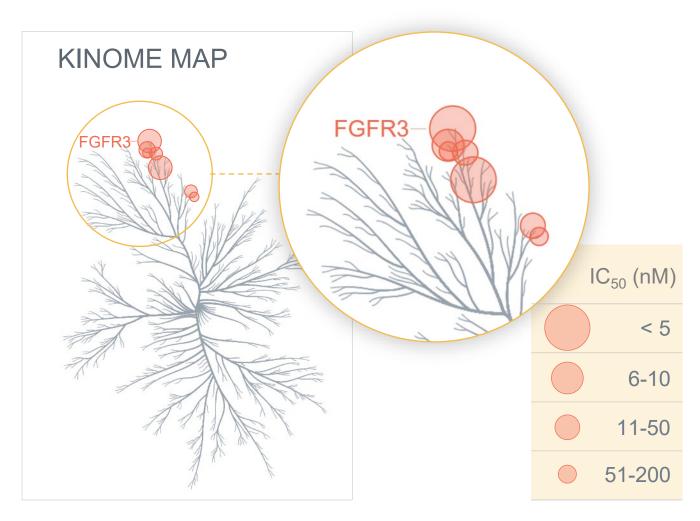
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TYRA-300 is designed to address the unmet need



Source: SEER, ACS, NCCN; UpToDate; Company filings; GlobalData; Wu et al, 2020; Zhang et al, 2016; Graham et al., 2018; Mok et al, 2020; Subbiah et al, 2020; Drilon et al, 2023; Kacew et al, 2020; Matulewicz, 2020; Rizzo, 2022; Necchi, 2020

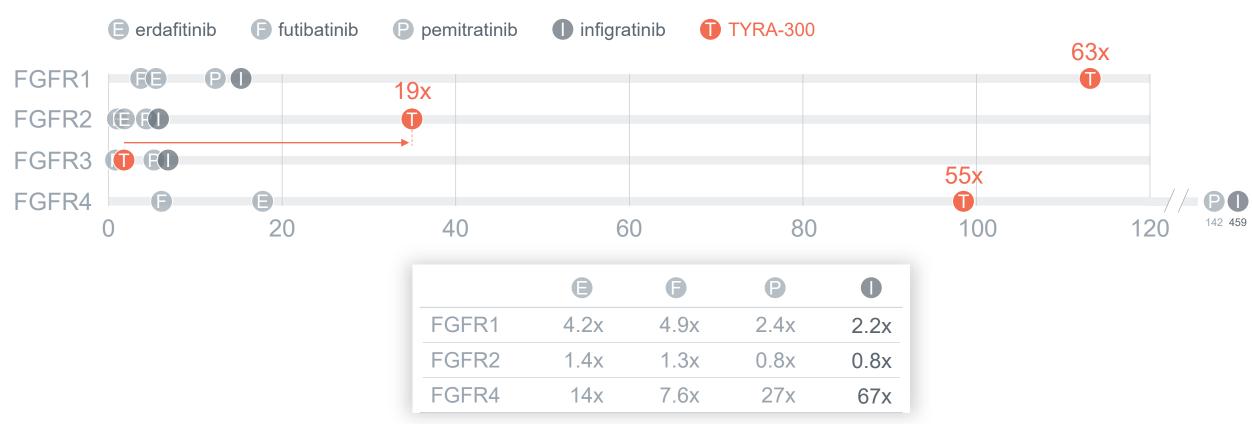
TYRA-300 showed greater potency for FGFR3 than other isoforms



	TYRA-300	FGFR3 selectivity
FGFR3	1.6	1.0x
FLT4	2.1	1.3x
FGFR2	6.5	4.0x
FGFR4	11.0	6.9x
JAK2	35.5	22x
LTK	65.1	41x
FGFR1	108	68x
FLT1	201	126x
JAK3	206	129x

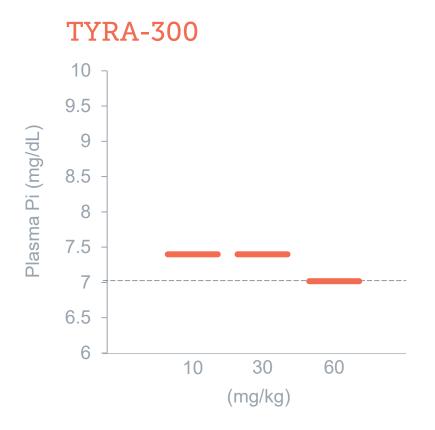
TYRA-300 was more selective for FGFR3 than pan-FGFR inhibitors

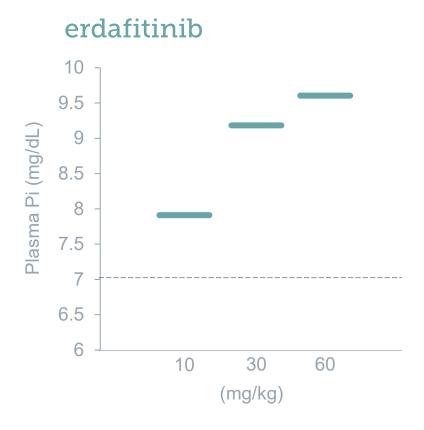
Selectivity observed for TYRA-300 vs. approved or late-stage clinical compounds: in vitro Ba/F3 Cellular IC₅₀ (nM)



TYRA-300 did not elevate phosphate relative to erdafitinib in vivo

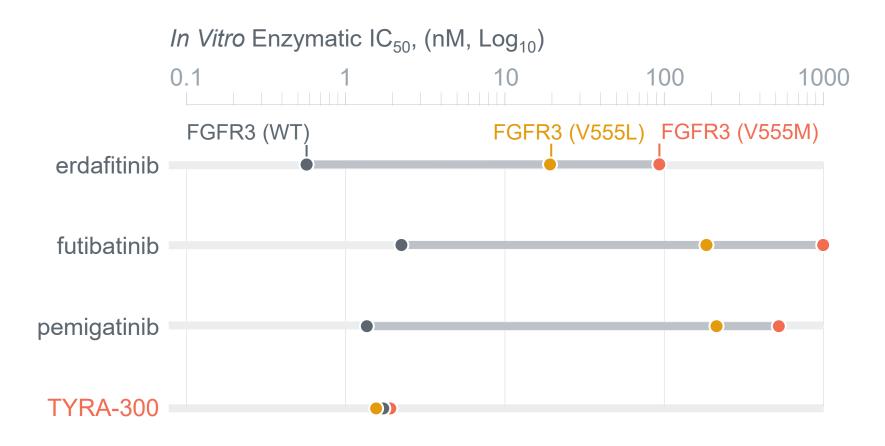
Rat plasma phosphate at 24 hours after single dose¹





^{1.} N=4 per group, pooled rat plasma; dotted line = pre-dose phosphate value of 3 dose groups

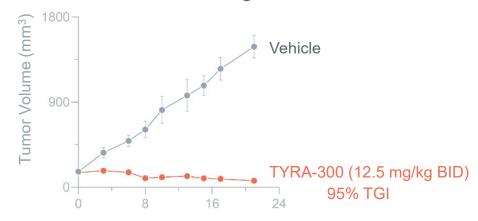
TYRA-300 retained potency against FGFR3 gatekeeper mutations

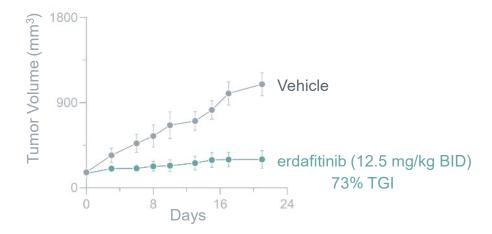


TYRA-300 was designed to avoid the "back pocket" where gatekeeper mutations emerge.

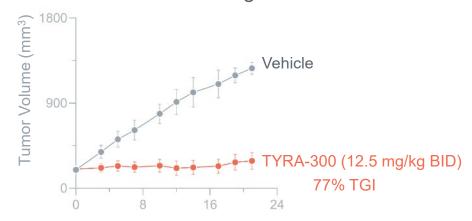
TYRA-300 showed activity in vivo in bladder cancer models

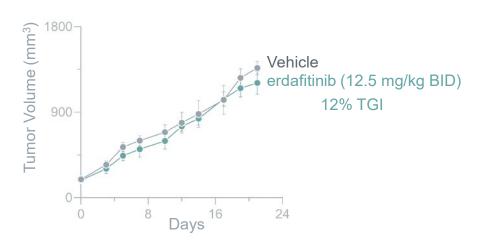
Bladder Cancer Xenograft FGFR3:TACC3





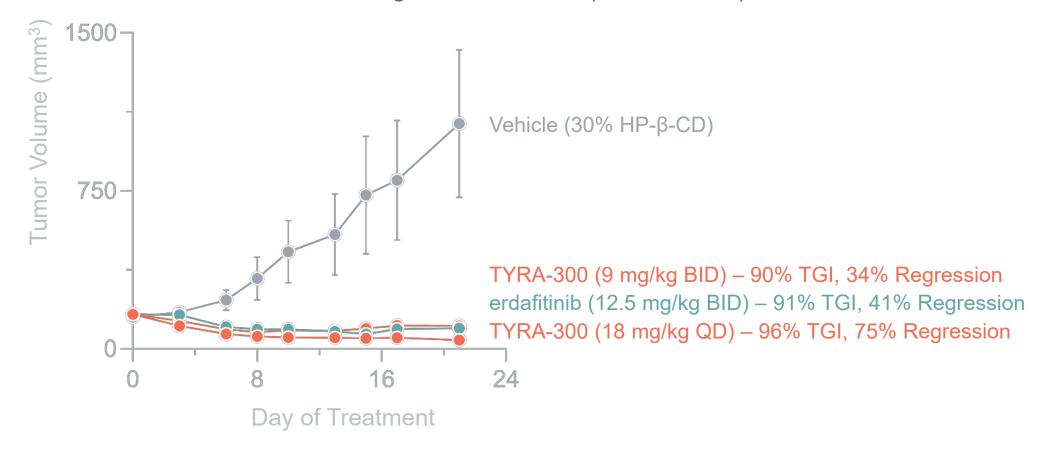
Bladder Cancer Xenograft FGFR3:TACC3-V555M



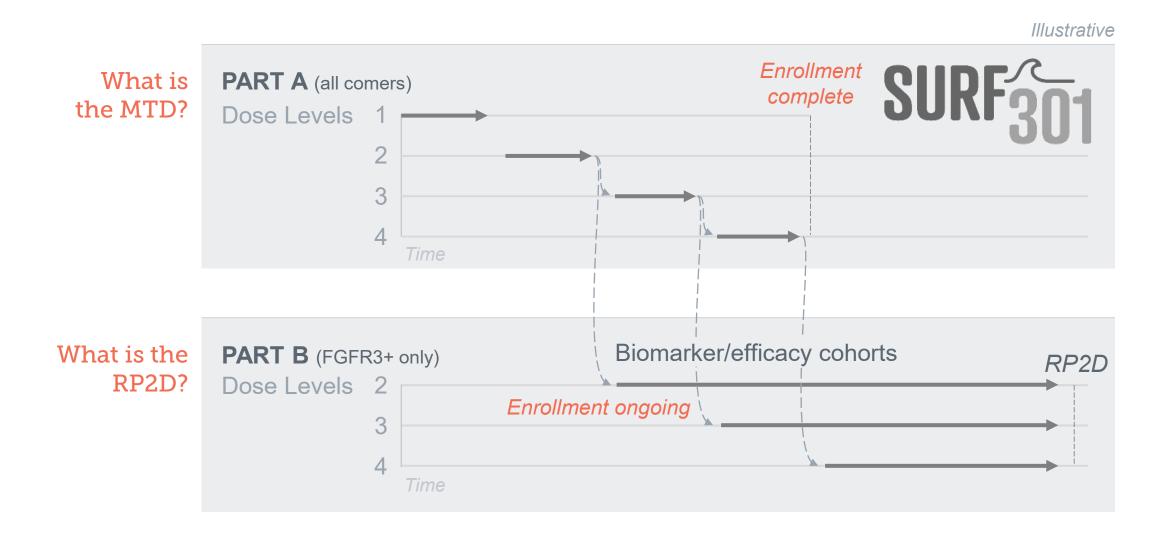


TYRA-300 regressed tumors in key urothelial xenografts

Bladder Cancer Xenograft UM-UC-14 (FGFR3^{S249C})

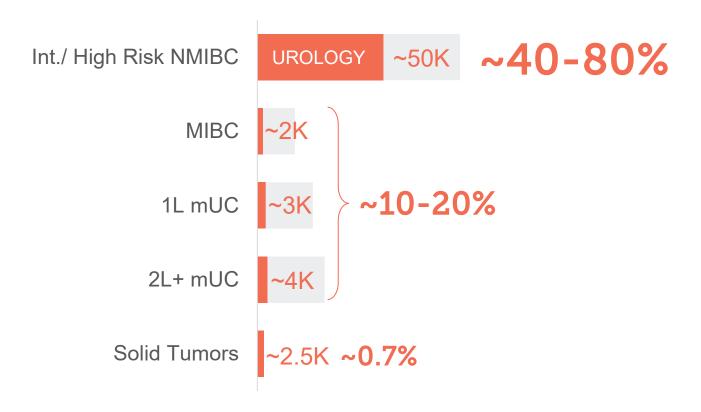


Our Phase 1 trial is designed to identify the RP2D

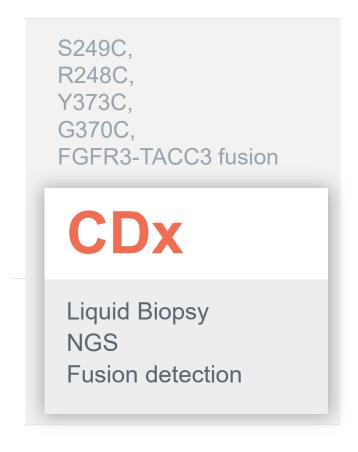


The estimated addressable FGFR3 patient population is large

Estimated 2022 US FGFR3+ Addressable Population¹



DRIVER MUTATIONS

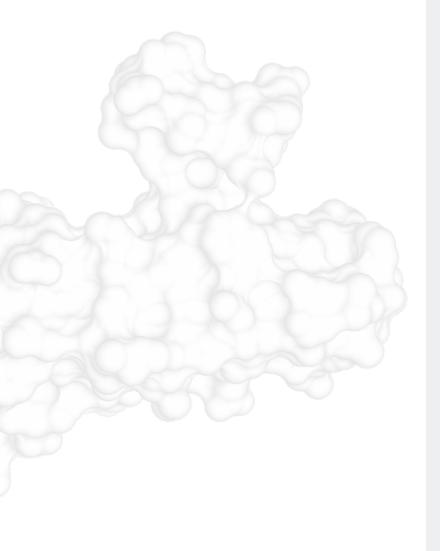


^{1.} Bladder figures represent potential annual diagnosed incident and recurrent case estimates by addressable disease stage; Solid tumors figure based on annual deaths Source: Clarivate Analytics; Kacew, 2020; Knowles, 2014; Mayr, 2022; van Rhijn, 2010; Murugesan, 2022

Erdafitinib has demonstrated PoC for FGFR inhibition in UC

	ERDAFITINIB (ORAL)	TAR-210 (PRETZEL)
Intermediate-Risk NMIBC	83% CR ¹ (n=18)	90% CR ² (n=31)
High-Risk NMIBC (Papillary)	77% 12mo RFS ³ (n=49)	90% RFS ² (n=21)
High-Risk NMIBC (CIS)	73% 6mo CR ⁴ (n=11)	
1L mUC	55% ORR with PD-1 ⁵ (n=44)	
2L/3L mUC	35.3% ORR, 12.1mo OS ⁶ (n=136)	
Unmet Need	Durability and Tolerability	Administration

TYRA



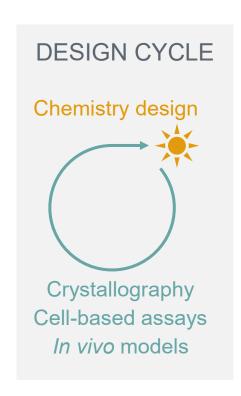
TYRA-300^{ACH}

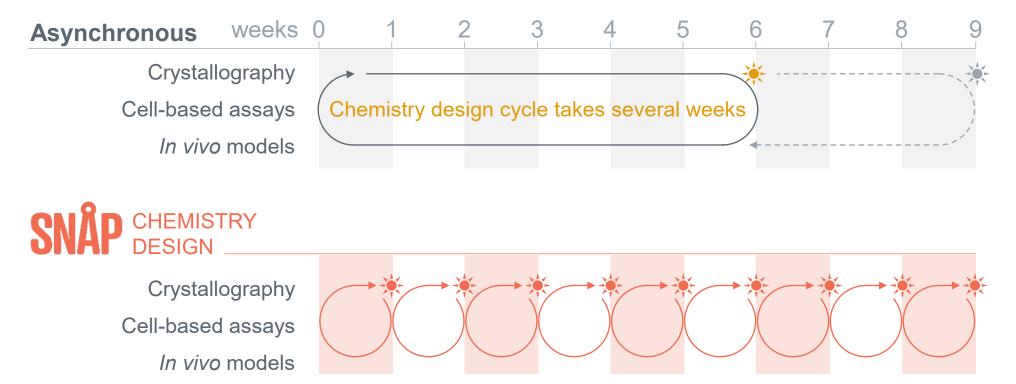
TYRA-300^{ONC}

SNÅP

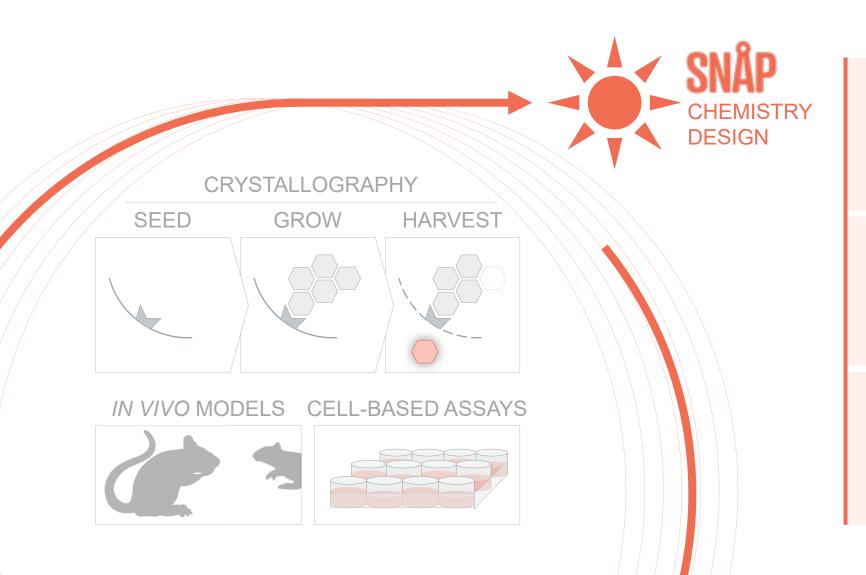
Our rapid approach to discovery continues to generate promising candidates such as TYRA-200

Our unconventional approach accelerates discovery





We've optimized the drug design cycle in-house



CRYSTALLOGRAPHY

New compound to structure in as little as 3 days

CELL-BASED ASSAYS

New compound to cellular data in as little as 2 days

IN VIVO MODELS

New compound to initial PD readout in as little as 5 Days

EXAMPLE

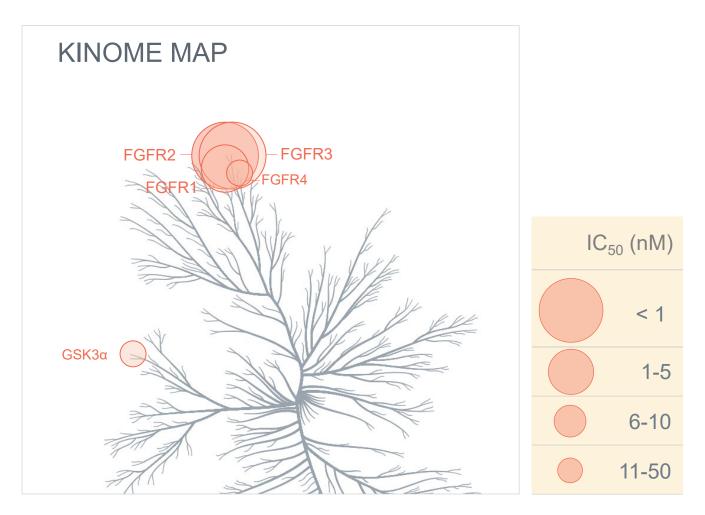
TYRA-200

Intrahepatic cholangiocarcinoma (ICC)

Designed to be gatekeeper- and molecular brake-agnostic and FGFR4-sparing

Potential gateway to additional solid tumor development programs

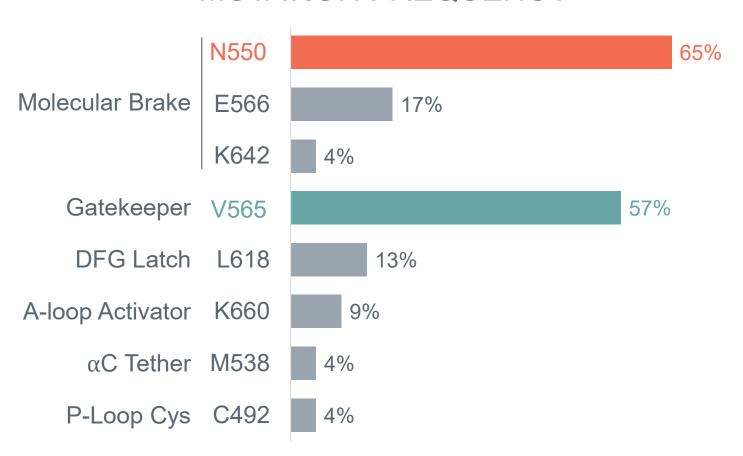
TYRA-200 showed high selectivity for FGFR1/2/3, sparing FGFR4



	TYRA-200	FGFR2 selectivity
FGFR2	0.47	1.0x
FGFR3	0.66	1.4x
FGFR1	1.8	3.8x
FGFR4	30.5	65x
GSK3α	35.6	76x

Polyclonal acquired drug resistance occurs often in FGFR2

MUTATION FREQUENCY

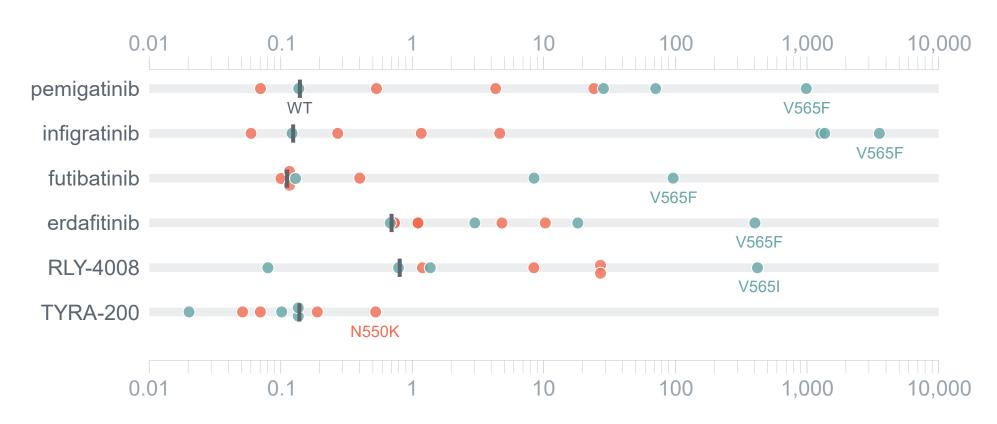


Over 50% of patients who recur on FGFR therapy have gatekeeper and molecular brake mutations

TYRA-200 retained potency for key acquired resistance mutations

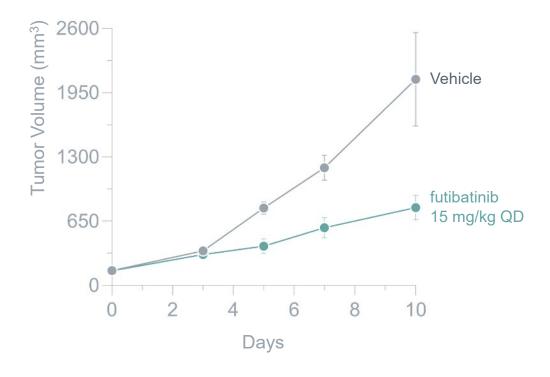
In Vitro Enzymatic IC₅₀, (nM, Log₁₀)

Variants tested: WT, N550D, N550H, N550K, N550T, V565F, V565L, V565I

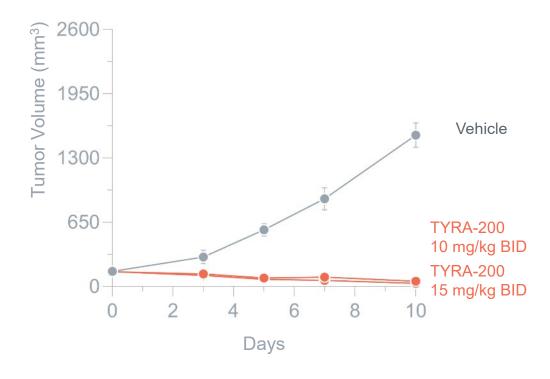


TYRA-200 regressed tumors with gatekeeper mutations

Ba/F3 FGFR2 V565F Allografts

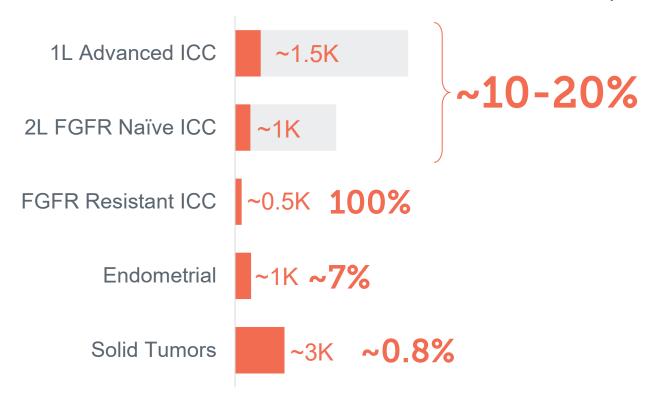


Ba/F3 FGFR2 V565F Allografts



TYRA-200 has multiple opportunities across FGFR2+ solid tumors

Estimated Potential Annual US FGFR2+ Addressable Population¹



Driver mutations

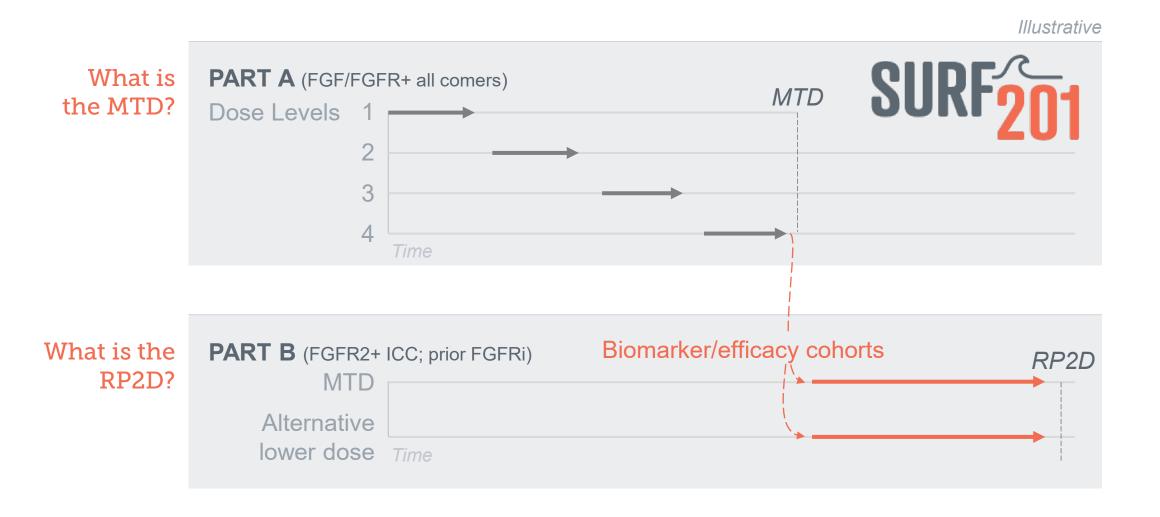
Rearrangement+, N550^{MB}, K650E, S252W, Y375C, C382R

Acquired resistance is a key unmet need in FGFR2+ ICC

ADDRES	SABLE (US) ¹	LEAD OPTION	UNMET NEED
1 st Line	~1.5K	CPI + Chemo	Only ~27% of patients respond; Increased PFS (Durva+Gem/Cis: 7.2mo ²)
2 nd Line	~1K	FGFR2 Inhibitors	Increased PFS (futibatinib: 8.9mo ³) ~67% of FGFR2i responders relapse with resistance mutations ⁴
3 rd Line	~0.5K	Chemo or palliative	Polyclonal resistance; need for gatekeeper and molecular brake-agnostic approach

^{1.} Represents estimated potential annual incident and recurrent case estimates by addressable disease stage 2. Oh et al, 2022; 3. Data presented at ASCO (June 2022); N=103; 4. Data presented at EORTC (October 2020); N=46. Evaluable FGFR2-fusion Patients (ICC) on FGFR therapy w/ post-progression biopsy

Our Phase 1 trial focuses on FGFR resistance patients



Our expertise in FGFR biology creates a differentiated pipeline

GENETIC CONDITIONS	Estimated Annual US Addressable ¹	Discovery	IND- Enabling	1	Phase 2	3	Anticipated Milestone
FGFR3 ^{ACH} : TYRA-300	~3K		• · · · ·	Data from FGFR3 ^{ONC}	••••		Submit IND 2H '24

Potentially leading to additional skeletal dysplasias, including FGFR3-related conditions (HCH, SHOX), and pediatric short stature

ONCOLOGY



TYRA retains an active FGFR3 discovery program.

^{1.} Represents FGFR3/FGFR2/FGF19+ incidence and relapses for TYRA300/200/430, prevalence for ACH

Here's a snapshot of TYRA

Differentiated assets

Precision small molecules targeting large opportunities in FGFR biology

Lead asset: TYRA-300, the first oral FGFR3-selective inhibitor in the clinic

Accelerated design



NASDAQ: TYRA

CASH Mar 31, 2024: \$382.5M

UP NEXT

TYRA-300^{ONC}: plan to report initial Ph1 results at a scientific congress in 2H '24

TYRA-300^{ACH}: plan to submit IND in 2H '24

TYRA-430^{ONC}: plan to complete IND-enabling studies